CHAPTER 4

Installation on Cisco 3660 Routers

This chapter describes how to install a NEBS Level 3/ETSI kit on your Cisco 3660 router and contains the following sections:

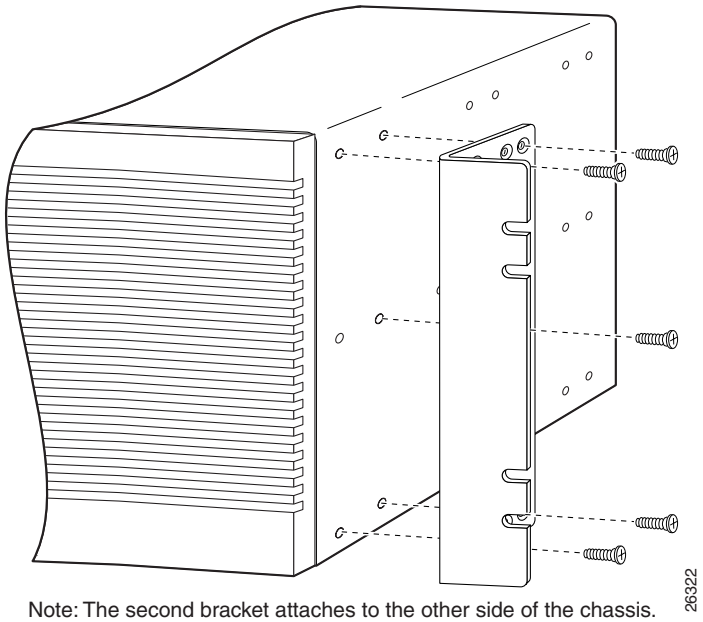
Note If you have yet to install your Cisco 3600 series router, see the publication *Cisco 3600 Series Hardware Installation Guide*.
You can access this document online and on the documentation CD-ROM that you received with your router at: **Cisco Product Documentation > Access Servers and Access Routers > Modular Access Routers > Cisco 3600 Series Routers > Hardware installation documents for Cisco 3600 series**

Attaching the 23-Inch Rack-Mounting Brackets

The NEBS kit for Cisco 3660 routers comes with rack-mount brackets for installing the Cisco 3600 series routers in 23-inch or 24-inch racks.

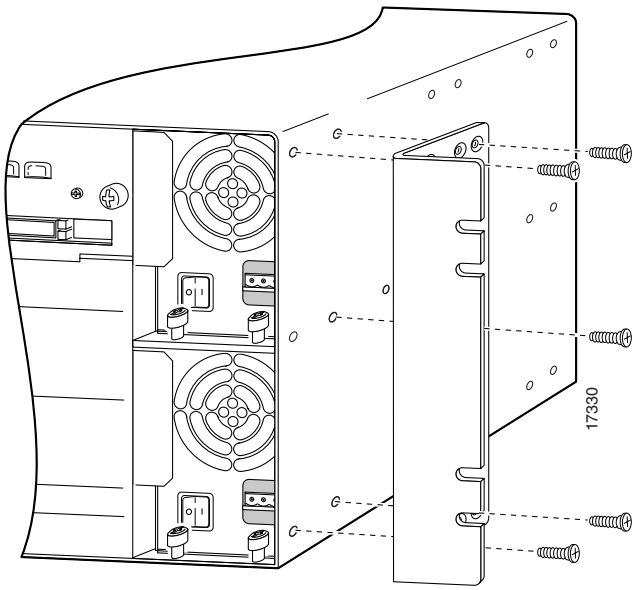
Attach the mounting brackets to the chassis as shown in Figure 4-1, Figure 4-2, or Figure 4-3, using the screws provided. Attach the second bracket to the opposite side of the chassis.

Figure 4-1 23-Inch Bracket Attachment to Cisco 3660 Chassis—Front Panel Forward



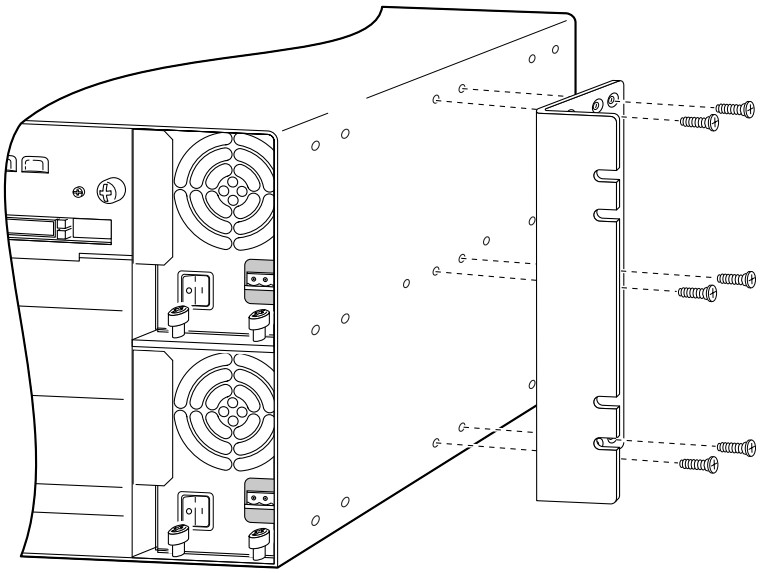
Note: The second bracket attaches to the other side of the chassis.

Figure 4-2 23-Inch Bracket Attachment to Cisco 3660 Chassis—Rear Panel Forward



Note: The second bracket attaches to the other side of the chassis.

Figure 4-3 23-Inch Bracket Attachment to Cisco 3660 Chassis—Center-Mount, Rear Panel Forward



Note: The second bracket attaches to the other side of the chassis.
The brackets can also be installed with the front panel forward.

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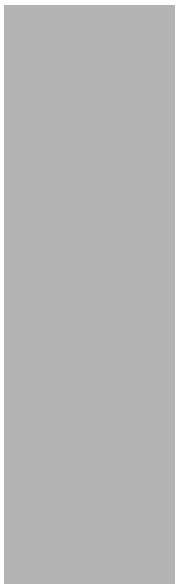
Installing the Cable Management Bracket

The NEBS kit for Cisco 3660 routers comes with a cable management bracket for managing cables for the Cisco 3600 series router. (See Figure 4-4.)

Figure 4-4 Cable Management Bracket to Cisco 3660 Chassis



Attach the cable management bracket to the chassis as shown in Figure 4-5, using the screws provided. Wrap cables to the management bracket as shown in Figure 4-6.

Figure 4-5 Cable Management Bracket on the Cisco 3660 Chassis

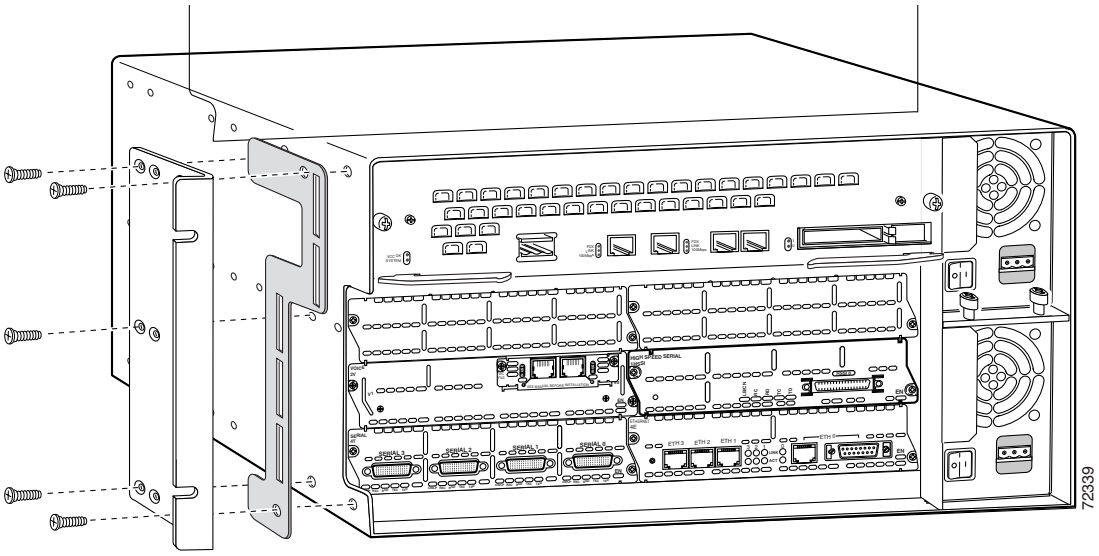


Figure 4-6 Wrapping Cables to the Management Bracket on the Cisco 3660 Chassis

Installing the Ground Lug

Follow this procedure to attach the ground lug to your router chassis:

Step 1 Turn OFF power to the router. However, to channel ESD voltages to ground, do not unplug the power cable. Remove all network interface cables, including telephone cables, from the rear panel.

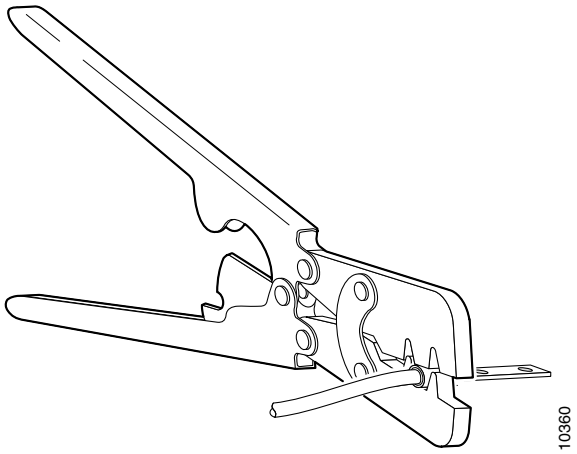
The following warning applies to routers that use a DC power supply:

Warning **Before performing any of the following procedures, ensure that power is removed from the DC circuit. To ensure that all power is OFF, locate the circuit breaker on the panel board that services the DC circuit, switch the circuit breaker to the OFF position, and tape the switch handle of the circuit breaker in the OFF position. To see translations of the warnings that appear in this publication, refer to the *Regulatory Compliance and Safety Information* document that accompanied this device.**

Step 2 Strip one end of the 6-AWG wire to expose approximately 0.75 in. (20 mm).

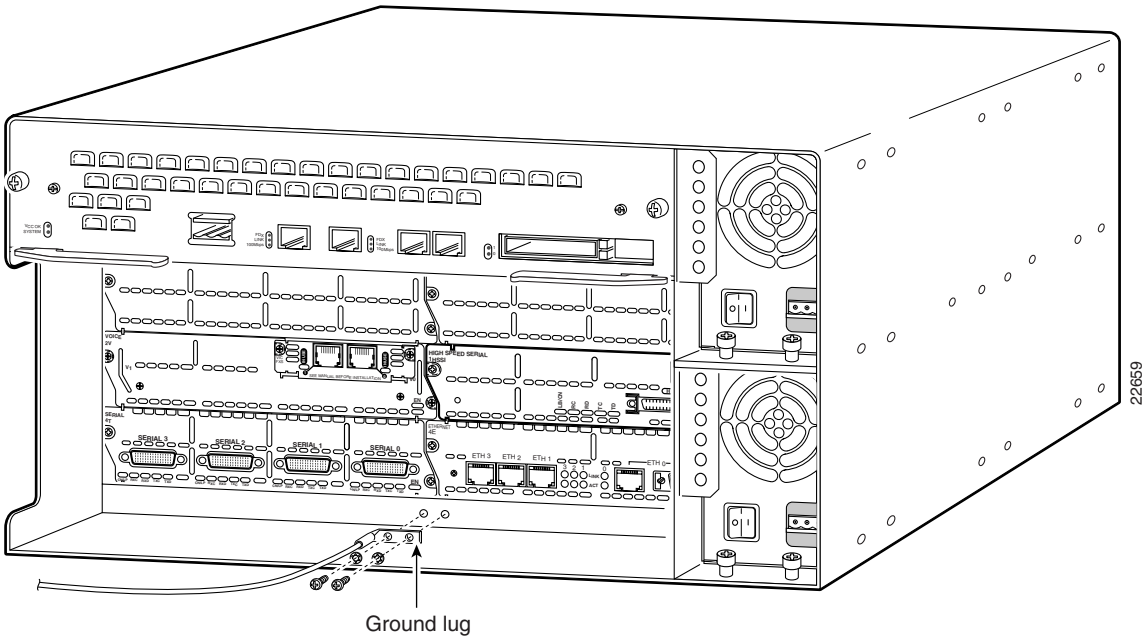
Step 3 Crimp the ground lug around the wire. (See Figure 4-7.)

Figure 4-7 Crimping the Lug Around the Wire



Step 4 Use the number 2 Phillips screwdriver to fasten the ground lug to the Cisco 3660 router chassis. (See Figure 4-8.)

Figure 4-8 Ground Lug Fastened to Cisco 3660 Chassis



Step 5 Connect the other end of the ground lug wire to a grounding point at your site.

Making Network Connections

Note If you still need to install network modules or WAN interface cards, you can do so now. For instructions, see these publications: *Cisco 3600 Series Hardware Installation Guide, Cisco Network Modules Hardware Installation Guide, Cisco WAN Interface Cards Hardware Installation Guide.* You can access these documents online and on the documentation CD-ROM that you received with your router at: **Cisco Product Documentation > Access Servers and Access Routers > Modular Access Routers > Cisco 3600 Series Routers > Hardware installation documents for Cisco 3600 series**

Reinstall network cables and turn ON power to the router.

Note The shielded cables in your NEBS/ETSI kit replace the cables originally shipped with your router.

Caution **NEBS/ETSI Intrabuilding Lightning Requirement**
This equipment is suitable for connection to intrabuilding or nonexposed wiring or cabling only. This cabling must be shielded.

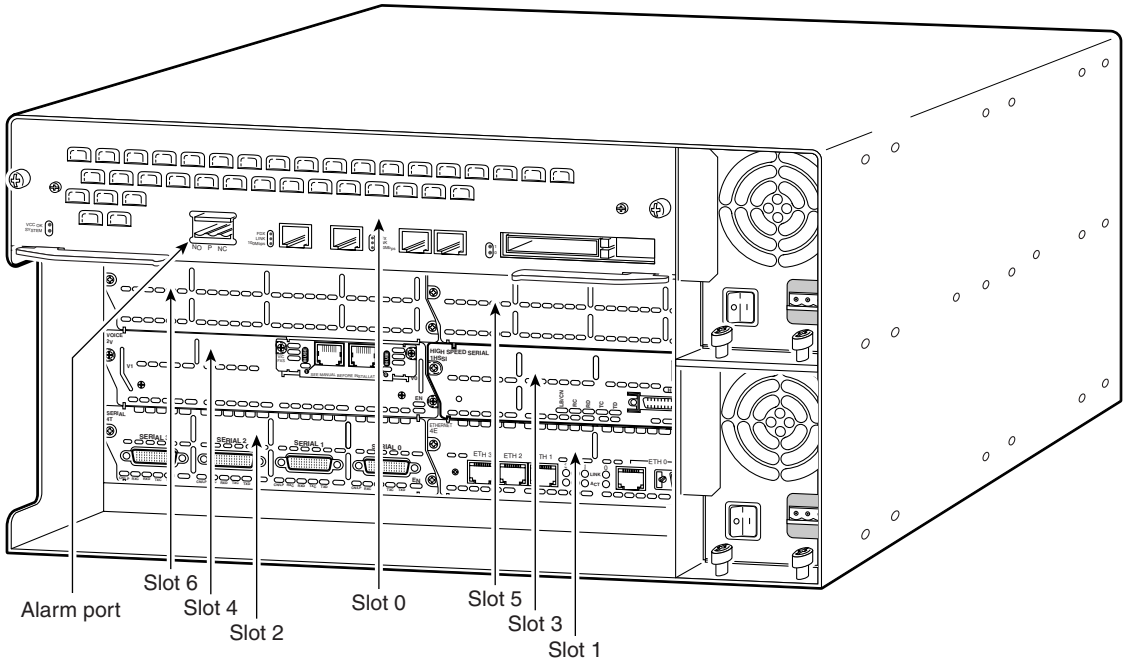
The following warning applies to routers that use a DC power supply:

Warning **After wiring the DC power supply, remove the tape from the circuit breaker switch handle and reinstate power by moving the handle of the circuit breaker to the ON position. To see translations of the warnings that appear in this publication, refer to the *Regulatory Compliance and Safety Information* document that accompanied this device.**

Installing the Alarm Terminal Block

The alarm port on the Cisco 3660 rear panel (see Figure 4-9) provides relay outputs to connect the router to a remote alarm.

Figure 4-9 Alarm Port on the Cisco 3660 Router



The terminals are described in Table 4-1. In order to operate the alarm port, wire the P terminal and one of the other terminals (NO and NC).

Table 4-1 Alarm Terminal Block Connections

Terminal	Meaning
P	Primary—This pin is connected to the common contact of the alarm relay.
NO	Normally open—This pin is connected to the “normally open” contact of the alarm relay, and is disconnected from the primary pin during normal system operation. During an alarm condition it is connected to the primary pin by the alarm relay.
NC	Normally closed—This pin is connected to the “normally closed” contact of the alarm relay, and is connected to the primary pin during normal system operation. During an alarm condition it is disconnected from the primary pin by the alarm relay.

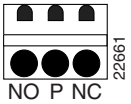
Follow this procedure to install the alarm terminal block (see Figure 4-10) in the Cisco 3660 router alarm port:

Step 1 Turn OFF power to the router. However, to channel ESD voltages to ground, do not unplug the power cable.

Step 2 Use 12- or 14-AWG copper wires to connect DC-input power to the terminal blocks.

Step 3 Strip the wire shielding so that approximately 0.38 in. (9.7 mm) of each wire is exposed.

Figure 4-10 Alarm Terminal Block



Step 4 Press the orange-colored release and insert a wire into a receptacle of the alarm terminal block. Two of the three receptacles must have wires installed (see Table 4-1). The spring-loaded connector retains the wires.

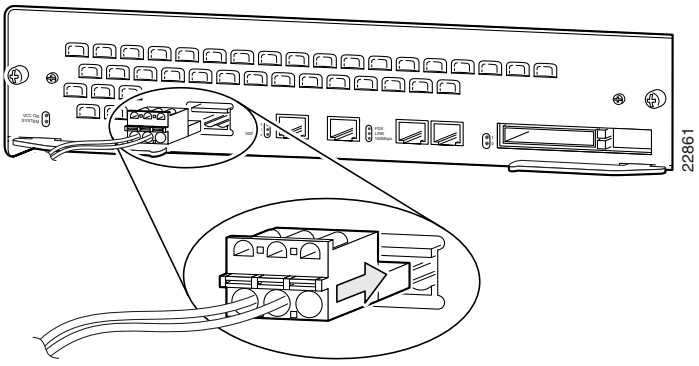
Note Always wire the P terminal and one of the other (NO and NC) terminals.

Note To remove wires, press the orange-colored release next to each receptacle.

Step 5 Plug the alarm terminal block into the alarm port on the Cisco 3660 chassis. (See Figure 4-11.)

Note Connect the alarm terminal block to either an AC power source rated maximum 25 VAC and 5A current rating, or a DC power source rated maximum 30V and 5A current rating.

Figure 4-11 Connecting the Alarm Terminal Block to the Alarm Port



Step 6 Reinstall network cables, and turn ON power to the router.